

## 2.7 – Prove Angle Pair Relationships

Right Angles Congruence Theorem: All right angles are congruent

Vertical Angles Congruence Theorem: Vertical angles are congruent

Congruent Supplements Theorem:

If two angles are supplementary to the same angle, then they are congruent.

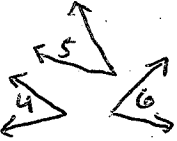
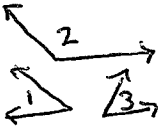
Congruent Complements Theorem:

If two angles are complementary to the same angle, then they are congruent.

Linear Pair Postulate:

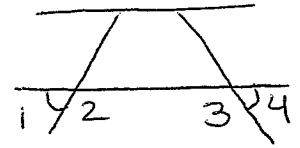
If two angles form a linear pair, then they are supplementary.

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GIVEN:  $\angle 1 \cong \angle 4$

PROVE:  $\angle 2 \cong \angle 3$



1.  $\angle 1 \cong \angle 4$

2.  $\angle 1$  &  $\angle 2$  are a linear pair,  
 $\angle 3$  &  $\angle 4$  are a linear pair

3.  $\angle 1$  &  $\angle 2$  are supplementary angles,  
 $\angle 3$  &  $\angle 4$  are supplementary angles

4.  $\angle 2 \cong \angle 3$

1. GIVEN

2. DEF. OF LINEAR PAIR

3. LINEAR PAIR POSTULATE

4. Congruent Supplements Theorem